

KEEPING IT UP: Anti-lock Braking System

Anti-lock Braking Systems (ABS) are NOT designed to help you stop faster!

Despite the general impression that ABS equipped vehicles can stop faster than those without, in general this is not true. ABS is primarily intended to help prevent the loss of control (caused by locked brakes), not to in some magical way, make the brakes more effective at stopping the vehicle.

The reason ABS is not particularly effective in terms of braking ability on dry surfaces is that it is generally pretty easy to avoid locking the brakes anyway. So, I suppose, there are those that will argue that ABS helps you stop faster on slippery surfaces even if not on dry ones.

In fact that is not always true either. There are tests that show improved stopping performance (for cars and trucks) on WET surfaces, where drivers are more apt to overuse their brakes to the point of locking them, but there are several other studies that demonstrate absolutely convincingly that braking distances increase with ABS over non-ABS equipped vehicles when riding on loose gravel surfaces. (This, because gravel piles up and tends to create a 'dam' in front of a locked wheel where a rolling wheel tends to ride up and over a much smaller 'dam'.)

But 'maintaining control' is a good thing by itself, right? Surely that is good enough reason to require every vehicle to have ABS equipped brakes, right?

Nope.

In February of 1996 the National Highway Traffic Safety Administration announced it had dropped the safety standard requirement for anti-lock brake systems on all new cars.

They did so because studies showed a 0% decrease in the overall number of accidents when comparing ABS equipped cars against those without ABS, AND because these studies showed a 40% increase in single vehicle run-off-the-road accidents with ABS equipped cars. (Apparently your odds of getting into an accident if you lock your brakes in a car is less than if you do not - implying that if you lock them you will likely simply slide in the direction you were moving, but if you maintain some measure of (impaired) control you are likely to throw the vehicle into a path that takes you off the road.)

I think ABS makes sense for a cage, and maybe more sense for an 18-wheeler, but is of marginal value on a motorcycle EXCEPT IN THE EVENT THAT YOU ARE PRONE TO PANIC AND OVERUSE YOUR BRAKES (in which case ABS can easily save your life!). It affects stopping distance insignificantly. What it is intended to do is help maintain control if you ride over surfaces that provide uneven traction. A cage could hit a patch with just one tyre, or just the tyres on one side, and braking and control could easily be lost as a result. If you hit gravel with a motorcycle it will invariably be with both tyres. Meanwhile, a slide is a slide is a slide. Why do you think ABS should be turned off when riding on dirt?

On the other hand, if your bike is equipped with ABS you do not have to be as skilful with your brakes and if you want to eliminate the chance of locking either your front or rear wheels, ABS is just the ticket for you. (I think working at making your braking skills as good as possible is a better strategy for almost anybody.)

One other thing, you might consider ABS as a form of insurance. If price is not an issue, and even if you are not totally convinced that ABS will save your life someday, it might be worth it to you to have ABS on your bike.

Obviously, these are just my opinions on the matter. I do not want to leave you with the impression that I'm recommending against having ABS. Instead, I'd prefer you made that decision based on being informed and having realistic expectations.

